

CLASSIFICATION:

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EXHIBIT R-2, RDT&E Budget Item Justification							DATE:	
							February 2005	
APPROPRIATION/BUDGET ACTIVITY					R-1 ITEM NOMENCLATURE			
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-5					0604264N/Aircrew Systems Development			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	16.922	21.347	10.902	11.171	6.324	1.631	1.687	1.748
0606 Aircrew Systems Development	9.607	14.617	10.902	11.171	6.324	1.631	1.687	1.748
2877 Joint Helmet Mounted Cueing System	4.043	5.048						
9061 Intensifier Tube Advanced Development	3.272	1.682						
A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:								
The Aircrew Systems Development program provides engineering and manufacturing development (EMD) of Aviation Life Support Systems to protect aircrews from current and future threats including: directed energy weapons, chemical/biological/radiological agents/fallout, ballistic projectiles, temperature extremes, heat/fire, low concentration oxygen environments, high dynamic forces during emergency egress, and high "G" forces. The program also provides development for the following capabilities: head protection, in flight restraint and stability emergency egress and descent, escape and evasion, survival and rescue, crash protection, and anthropometric sizing for small aircrew. Acquisition initiatives include: competition, the application of streamlining initiatives, use of non-developmental items (NDI), joint and tri-service developments, and the pursuit of NATO/allied cooperative ventures, which expedite introduction of new products into Navy and Marine Corps fixed and rotary wing aircraft, reduce costs, and promote commonality.								

R-1 SHOPPING LIST - Item No.

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Exhibit R-2, RDTEN Budget Item Justification
 (Exhibit R-2, page 1 of 18)

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EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5		PROGRAM ELEMENT NUMBER AND NAME 0604264N/Aircrew Systems Development			PROJECT NUMBER AND NAME 0606/Aircrew Systems Development			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	9.607	*14.617	10.902	11.171	6.324	1.631	1.687	1.748
RDT&E Articles Qty								

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

(U) SUBPROJECTS:

- (U) ESCAPE AND CRASH SAFETY: Navy Aircrew Common Ejection Seat Pre-Planned Product Improvement (NACES P3I), Advanced Crashworthy Aircrew Survival Systems (ACASS), Joint Cockpit Air Bag System (JCABS), Advanced Crash Sensor & Restraint (ACSR), Crashworthy Troop Seats (CWTS), Escape System Injury Reduction Program (ESIRP) includes Stability Improvement Program (SIP), Escape and Crashworthy Aircrew Endurance Modifications (ECAE), Mobile Aircrew Restraint System (MARS)/Tri-Service Safety Harness (TSSH).

- (U) LIFE SUPPORT/THREAT PROTECTION: Extreme Cold Weather Improvement Program/State of the Art Survival Items (ECWIP/SOASI), Personal Protective Apparel (PPA) formerly AMELIA, Aircrew Accommodation Expansion Program (AAEP), Aviation Oxygen Systems (AOS), Aircrew Exposure Protection Systems (AEPS) formerly Aircrew Cooling/Advanced Integrated Life Support Systems (AILSS), Liquid Oxygen to ON-Board Oxygen Generating System (LTO), Common Smoke Mask (CSM), Joint Protective Air Crew Ensemble (JPACE), Combat Survivor Evader Locater (CSEL).

- (U) HELMET, VISION AND DISPLAYS: Night Vision Systems (NVS), Joint Helmet Mounted Cueing System (JHMCS), Integrated Day/Night All Weather Helmet (IDNAWH), Wide Field of View (WFOV) Night Vision Goggle, JHMCS Night Attack, Agile Frequency Laser Eye Protection, and Laser Eye Protection Improvement Program (LEPIP), Joint Aircrew Laser Eye Protection Visor (JALEPV).

*FY 2005 includes Congressional Add for Lightweight Armored Troop Seat (LWATS) for H-60.

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EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005																															
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604264N/Aircrew Systems Development	PROJECT NUMBER AND NAME 0606/Aircrew Systems Development																																
<p>(U) B. Accomplishments/Planned Program</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <tr> <th style="width: 30%;"></th> <th style="width: 15%;">FY 04</th> <th style="width: 15%;">FY 05</th> <th style="width: 15%;">FY 06</th> <th style="width: 15%;">FY 07</th> </tr> <tr> <td>Accomplishments/Effort/Subtotal Cost</td> <td style="text-align: center;">3.596</td> <td style="text-align: center;">4.763</td> <td style="text-align: center;">1.576</td> <td style="text-align: center;">0.497</td> </tr> <tr> <td>RDT&E Articles Quantity</td> <td></td> <td></td> <td></td> <td></td> </tr> </table> <div style="border: 1px solid black; padding: 10px; min-height: 150px;"> <p>NACES P3I: Continue retrofit of phase I NACES P3I technologies in T-45 and F/A-18 aircraft. Phase II sequencer modifications are being incorporated in new production NACES equipped aircraft. Processes revised ECP to start retrofit of JHMCS modifications to NACES. ACASS: Conducting mishap trend analysis used to identify and prioritize crash and escape system improvements. JCABS: Continue to conduct technical reviews with Army to develop and integrate airbag technology to Navy H-60 aircraft. ACSR: Performing modeling and simulation to evaluate optimum design for advanced restraint integrated to various rotary wing applications. Conducting trade study to establish pricing for candidate modifications. CWTS: Completed CDR and PCA. Completed development - qualification testing (DT) of reduced weight troop seat design and delivered 20 OPEVAL seats for UH-1, ESIRP: Purchased long lead test hardware for qualification testing. Completed PDR and CDR for NACES Stability Improvement. Completed developmental testing (DT) of active stabilization system. Started component qualification of stabilization subsystems. Conducted aircraft integration fit checks. Conducted FMA 1. Conducting stability trade study for legacy ejection seat equipped aircraft. ECAE: Commenced limited testing (DT) of endurance modifications for ejection and crashworthy applications. MARS/TSSH: Completed PDR and CDR. Completed developmental testing (DT) of restraint in H-60. Continue flight testing of new retractor system in H-60. Common MARS: Commenced work on replacing existing gunners belt with more capable harness. Lightweight Armored Troop Seat (LWATS) H-60: Commenced developmental effort.</p> </div> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr> <th style="width: 30%;"></th> <th style="width: 15%;">FY 04</th> <th style="width: 15%;">FY 05</th> <th style="width: 15%;">FY 06</th> <th style="width: 15%;">FY 07</th> </tr> <tr> <td>Accomplishments/Effort/Subtotal Cost</td> <td style="text-align: center;">2.384</td> <td style="text-align: center;">7.189</td> <td style="text-align: center;">8.832</td> <td style="text-align: center;">10.188</td> </tr> <tr> <td>RDT&E Articles Quantity</td> <td></td> <td></td> <td></td> <td></td> </tr> </table> <div style="border: 1px solid black; padding: 10px; min-height: 150px; margin-top: 10px;"> <p>ECWIP/SOASI: Continue evaluation and authorizations of state of the art survival items. PPA: Complete fleet assessment, finalize technical data package, begin procurement and fielding of the Multi-Climate Protection System. AAEP: Continue evaluating aircraft seat positions in aircraft so equipped for accommodation issues. Publish technical reports on accommodation levels in aircraft. Continue developing detailed cockpit CAD pictures. Reevaluate aircraft and anthropometric restriction codes as modifications to existing aircraft and/or aircrew clothing and equipment occur or as new aircraft are introduced. AEPS/AILSS: Conduct DT testing. LOX TO OBOGS (LTO): Continuing work on integrating OBOGS study and Analysis of Alternatives to determine LOX-Free solution for Advanced Hawkeye(AHE).</p> </div>						FY 04	FY 05	FY 06	FY 07	Accomplishments/Effort/Subtotal Cost	3.596	4.763	1.576	0.497	RDT&E Articles Quantity						FY 04	FY 05	FY 06	FY 07	Accomplishments/Effort/Subtotal Cost	2.384	7.189	8.832	10.188	RDT&E Articles Quantity				
	FY 04	FY 05	FY 06	FY 07																														
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RDT&E Articles Quantity																																		
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Accomplishments/Effort/Subtotal Cost	2.384	7.189	8.832	10.188																														
RDT&E Articles Quantity																																		

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Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 3 of 18)

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EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604264N/Aircrew Systems Development	PROJECT NUMBER AND NAME 0606/Aircrew Systems Development		
(U) B. Accomplishments/Planned Program				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	3.627	2.665	0.494	0.486
RDT&E Articles Quantity				
<p>NVS: WFOVNVG testing. JHMCS: MS III approved. JHMCS Night Attack: Continue SDD, initiate DT and OT. JALEPV: MS III. Night Attack: Initiate DT. Agile Frequency Laser: Continue development, conduct PDR.</p>				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.000	0.000	0.000	0.000
RDT&E Articles Quantity				

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EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604264N/Aircrew Systems Development	PROJECT NUMBER AND NAME 0606/Aircrew Systems Development		

C. PROGRAM CHANGE SUMMARY:

	FY 04	FY 05	FY 06	FY 07
Funding:				
Previous President's Budget:	8.668	8.838	3.446	2.382
Current BES/President's Budget	9.607	14.617	10.902	11.171
Total Adjustments	0.939	5.779	7.456	8.789
Summary of Adjustments				
Congressional undistributed reductions		-0.088		
SBIR/STTR Transfer	-0.049			
Miscellaneous Adjustments	0.988	4.867	7.435	8.762
Economic Assumptions			0.021	0.027
Congressional increases		1.000		
Subtotal	0.939	5.779	7.456	8.789

Schedule:

CWTS program rescope to meet new reduced weight UH-1Y requirements. CDR added to 2Q FY 04 and LRIP delayed to 2Q FY 05 to accommodate new design. ESIRP: Due to technical problems encountered with drogue sub system, qualification testing and LRIP has been delayed to 4Q FY 06. Engineering resources have been shifted to resolve integration and technical problems encountered during MARS development. The follow-on spec for common MARS is now scheduled for 2Q FY 05. Common MARS program added to better illustrate key acquisition events. Unlike MARS for H-60, PMA 202 is responsible for webbing retractor and aircraft integration. MARS Follow-on platform SOW/SPEC milestone deleted and added to Common MARS, MARS H-60 DT/OT completed in 1Q FY 05. Due to manufacturing delays, MS III for JALEPV will be delayed until 2Q FY 05. JHMCS P3I NIGHT ATTACK PDR and CDR slipped to 2Q FY 05 due to manufacturing delays. LOX TO OBOGS added to support LOX-Free solution for Advanced Hawkeye (AHE).

Technical:

Not Applicable.

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EXHIBIT R-2a, RDT&E Project Justification								DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5			PROGRAM ELEMENT NUMBER AND NAME 0604264N/Aircrew Systems Development			PROJECT NUMBER AND NAME 0606/Aircrew Systems Development			

D. OTHER PROGRAM FUNDING SUMMARY:

<u>Line Item No. & Name</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>To Complete</u>	<u>Total Cost</u>
Aviation Life Support - OPN 424400	32.108	31.944	26.946	13.264	20.778	23.022	23.584	24.158	CONT	CONT
Aviation Life Support Mods - APN 057500	3.091	2.473	0.323	16.302	15.962	8.313	8.546	11.579		66.589

E. ACQUISITION STRATEGY:

Commercial Off-The-Shelf (COTS)/NDI where possible, cost plus award fee contracts. Majority of programs non-ACAT programs with no specific acquisition strategies.

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Exhibit R-3 Cost Analysis (page 1)								DATE: February 2005				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDTE&E, N / BA-5			0604264N/Aircrew Systems Development			0606/Aircrew Systems Development						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Systems Engineering	WX	NAWCAD, PAX RIVER, MD	46.802	6.829	Various	4.128	Various	3.257	Various	Continuing	Continuing	
Systems Engineering	WX	NAWCWD, CHINA LAKE, CA	5.321	0.377	Various	0.018	Various	0.022	Various	Continuing	Continuing	
Systems Engineering	WX	NSWC, INDIAN HEAD, MD	1.029	0.180	Various						1.209	
Systems Engineering	WX	NADEP, CHERRY PT., NC	0.295	0.090	Various						0.385	
Systems Engineering	WX	NAWCAD, LAKEHURST, NJ	0.144	0.073	Various						0.217	
Systems Engineering	WX	NADEP, NORTH ISLAND, CA		0.040	Various	0.040	Various	0.040	Various	Continuing	Continuing	
Systems Engineering	TBD	NORTHROP GRUMMAN		3.200	TBD	6.400	TBD	7.600	TBD	Continuing	Continuing	
Ancillary Hardware Development	TBD	TBD	2.400								2.400	
Tooling											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal Product Development			55.991	10.789		10.586		10.919		Continuing	Continuing	
Remarks:												
Integrated Logistics Support	WX	NAWCAD, PAX RIVER, MD	17.589	0.613	Various	0.165	Various	0.165	Various	Continuing	Continuing	
Integrated Logistics Support	WX	NSWC, CRANE, IN	0.450	0.200	Various						0.650	
Studies & Analyses	WX	NAWCAD, PAX RIVER, MD	0.300								0.300	
Configuration Management											0.000	
Technical Data											0.000	
Studies & Analyses											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal Support			18.339	0.813		0.165		0.165		Continuing	Continuing	
Remarks:												

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Exhibit R-3 Cost Analysis (page 2)										DATE: February 2005		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-5			0604624N/Aircrew Systems Development			0606/Aircrew Systems Development						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WX	NAWCAD, PAX RIVER, MD	36.766	0.832	Various	0.151	Various	0.087	Various	Continuing	Continuing	
Developmental Test & Evaluation	WX	NADEP, CHERRY PT., NC	0.386	0.230	Various						0.616	
Developmental Test & Evaluation	WX	NSWC, INDIAN HEAD, MD	0.233	0.150	Various						0.383	
Developmental Test & Evaluation	WX	NAWCWD,CHINA LAKE,CA		0.600	Various						0.600	
Operational Test & Evaluation	WX	COMOPTEVFOR,Norfolk		0.600	Various						0.600	
Operational Test & Evaluation	TBD	TBD	2.400	0.603	Various						3.003	
Award Fees											0.000	
Subtotal T&E			39.785	3.015		0.151		0.087		Continuing	Continuing	
Remarks:												
SBIR Assessment											0.000	
Government Engineering Support											0.000	
Program Management Support											0.000	
Travel											0.000	
Transportation											0.000	
SBIR Assessment											0.000	
Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:												
Total Cost			114.115	14.617		10.902		11.171		Continuing	Continuing	
Remarks:												

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Exhibit R-2, RD TEN Budget Item Justification
(Exhibit R-2, page 8 of 18)

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EXHIBIT R4, Schedule Profile																								DATE: February 2005									
APPROPRIATION/BUDGET ACTIVITY								PROGRAM ELEMENT NUMBER AND NAME								PROJECT NUMBER AND NAME																	
RDT&E, N / BA-5								0604264N/Aircrew Systems Development								0606/Aircrew Systems Development																	
Fiscal Year		2004				2005				2006				2007				2008				2009				2010				2011			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Acquisition Milestones																																	
LOX TO OBOGS																																	
CWTS																																	
MARS H-60																																	
PPA																																	
JALEPV																																	
LWATS																																	
JHMCS P3I NIGHT ATTACK																																	
COMMON MARS																																	
Test & Evaluation Milestones																																	
LOX TO OBOGS																																	
CWTS																																	
JALEPV																																	
MARS H-60																																	
NACES II P3I																																	
JHMCS P3I NIGHT ATTACK																																	
WFOV NVG NIGHT																																	
ESIRP																																	
COMMON MARS																																	
Production Milestones																																	
MARS H-60																																	
JALEPV																																	
JHMCS																																	
CWTS																																	
COMMON MARS																																	
ESIRP																																	

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Exhibit R-4a, Schedule Detail						DATE:		
						February 2005		
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT				PROJECT NUMBER AND NAME		
RDT&BA-5		0604264N/Aircrew Systems Development				0606/Aircrew Systems Development		
Schedule Profile	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
LOX TO OBOGS - CDR			1Q-2Q					
LOX TO OBOGS - DT, DT ASSIST		3Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q			
CWTS - CDR, H-3, H-46 TBD	2Q	4Q						
CWTS - DT/OT, LRIP	1Q -4Q	1Q, 2Q						
MARS H-60- PDR, CDR	1Q, 3Q							
MARS H-60- LRIP		2Q						
MARS H-60 - DT/OT	1Q-4Q	1Q						
PPA - CDR		2Q						
JALEPV -MSIII, FRP		2Q	1Q					
JALEPV -DT/OT	1Q-2Q							
ESIRP - DT/OT, LRIP	1Q-4Q	1Q-2Q	4Q					
JHMCS P3I NIGHT ATTACK - PDR/CDR		2Q						
JHMCS P3I NIGHT ATTACK - DT/OT	3Q-4Q	1Q-4Q	1Q					
COMMON MARS - SPEC, DT/OT		2Q	2Q -4Q	1Q-4Q	1Q			
COMMON MARS - PDR, CDR, LRIP			3Q	3Q, 4Q				
NACES II P3I - DT	1Q-4Q	1Q-4Q						
WFOV NVG NIGHT ATTACK - DT/OT	1Q-4Q	1Q-4Q	1Q					
JHMCS - FRP	2Q							
LWATS - SBIR PHASE II		3Q						

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EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5		PROGRAM ELEMENT NUMBER AND NAME 0604264N/Aircrew Systems Development			PROJECT NUMBER AND NAME 2877/Joint Helmet Mounted Cueing System			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	4.043	5.048						
RDT&E Articles Qty	8	8						

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

(U) SUBPROJECTS:

- (U) JOINT HELMET MOUNTED CUEING SYSTEM currently has the capability to cue and verify cueing of high off-axis sensors and weapons in the air-to-ground and air-to-air arena (TFLIR and AIM-9X). To take advantage and enhance the war fighting capability at night, the program is integrating night vision capabilities into the JHMCS. This will increase the pilot's situational awareness through all phases of flight. Many friendly and threat aircraft already employ helmet mounted systems. FY04 articles include four mock-up devices for laboratory efforts and four developmental test flight worthy devices. FY05 articles include eight developmental test/operational test flight worthy devices.

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(U) B. Accomplishments/Planned Program				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	4.043	5.048		
RDT&E Articles Quantity	8	8		
<div>Initiate development, procure DT assets. Conduct DT, Integrated T&E, and OTRR. Initiate OT.</div>				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost				
RDT&E Articles Quantity				
<div></div>				

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C. PROGRAM CHANGE SUMMARY:

	FY 04	FY 05	FY 06	FY 07
Funding:				
Previous President's Budget:	4.153	0.000	0.000	0.000
Current BES/President's Budget	4.043	5.048	0.000	0.000
Total Adjustments	-0.110	5.048	0.000	0.000
Summary of Adjustments				
Congressional undistributed reductions		-0.051		
SBIR/STTR Transfer	-0.106			
Miscellaneous Adjustments		-0.001		
Economic Assumptions	-0.004			
Congressional increases		5.100		
Subtotal	-0.110	5.048	0.000	0.000

Schedule:

Not Applicable.

Technical:

Not Applicable.

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D. OTHER PROGRAM FUNDING SUMMARY:											
<u>Line Item No. & Name</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	To <u>Complete</u>	Total <u>Cost</u>	
Not Applicable											
E. ACQUISITION STRATEGY:											
Not Applicable											

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Exhibit R-2, RD TEN Budget Item Justification
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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5		PROGRAM ELEMENT NUMBER AND NAME 0604264N/Aircrew Systems Development			PROJECT NUMBER AND NAME 9061/Intensifier Tube Advanced Development				
COST (\$ in Millions)		FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost		3.272	1.682						
RDT&E Articles Qty		5	3						

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

(U) SUBPROJECTS:

- (U) INTENSIFIER TUBE ADVANCED DEVELOPMENT: The funding is needed to develop and integrate smaller and lighter night vision intensifier tubes (16mm) for narrow and wide field of view night vision systems. The advanced intensifier tubes will be the foundation for night vision devices that can be integrated with the Joint Helmet Mounted Cueing System (JHMCS) helmet mounted display system to provide a night vision cueing capability. This capability is necessary for rapid targeting of air-to-air missiles and air-to-ground weapons at night. Funding for the development of enhanced night vision imaging systems and the incorporation of the capability in current and future helmet mounted cueing systems will extend current daytime only technology for night use.

RDT&E Articles are state of the art 16mm image intensifier tubes.

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604264N/Aircrew Systems Development	PROJECT NUMBER AND NAME 9061/Intensifier Tube Advanced Development		
(U) B. Accomplishments/Planned Program				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	3.272	1.682	0.000	0.000
RDT&E Articles Quantity	5	3		
<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">Refine 16 mm Intensifier Tube Technology. Continue development of automated intensifier measurement system. Deliver prototype state-of-the art 16 mm image intensifier tubes.</div>				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost				
RDT&E Articles Quantity				

R-1 SHOPPING LIST - Item No. 96

UNCLASSIFIED

Exhibit R-2, RDTEN Budget Item Justification
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UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE:	
			February 2005	
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME		
RDT&E, N / BA-5	0604264N/Aircrew Systems Development	9061/Intensifier Tube Advanced Development		
C. PROGRAM CHANGE SUMMARY:				
Funding:	FY 04	FY 05	FY 06	FY 07
Previous President's Budget:	3.362	0.000	0.000	0.000
Current BES/President's Budget	3.272	1.682	0.000	0.000
Total Adjustments	-0.090	1.682	0.000	0.000
Summary of Adjustments				
Congressional undistributed reductions	-0.003	-0.018		
SBIR/STTR Transfer	-0.087			
Congressional increases		1.700		
Subtotal	-0.090	1.682	0.000	0.000
Schedule:				
Not Applicable.				
Technical:				
Not Applicable.				

R-1 SHOPPING LIST - Item No. 96

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Exhibit R-2, RD TEN Budget Item Justification
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UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification								DATE: February 2005		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5			PROGRAM ELEMENT NUMBER AND NAME 0604264N/Aircrew Systems Development			PROJECT NUMBER AND NAME 9061/Intensifier Tube Advanced Development				
D. OTHER PROGRAM FUNDING SUMMARY:										
<u>Line Item No. & Name</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	To <u>Complete</u>	Total <u>Cost</u>
Not Applicable										
E. ACQUISITION STRATEGY:										
Not Applicable										

R-1 SHOPPING LIST - Item No. 96

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Exhibit R-2, RD TEN Budget Item Justification
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